

of clock periods, and each of the plurality of clock periods is used for transmitting a 1-bit data.

4. The method of claim 3, wherein the instruction transmission time slot of the power adapter comprises eight clock periods, and the first instruction comprises a 8-bit data.

5. The method of claim 2, wherein the instruction reception time slot of the power adapter comprises a plurality of clock periods, and each of the plurality of clock periods is used for receiving a 1-bit data.

6. The method of claim 5, wherein the instruction reception time slot of the power adapter comprises ten clock periods, and the reply instruction corresponding to the first instruction comprises a 10-bit data.

7. The method of claim 1, wherein the first instruction is an instruction of a quick charging communication instruction set of the power adapter, and instructions of the quick charging communication instruction set have the same previous n bits.

8. The method of claim 1, wherein each clock period of the clock signal comprises a low level of 10  $\mu$ s and a high level of 500  $\mu$ s.

9. The method of claim 1, wherein the first data line is a D+ data line of the USB interface, and the second data line is a D- data line of the USB interface.

10-18. (canceled)

19. A power adapter, the power adapter being configured to be coupled to a mobile terminal via a Universal Serial Bus (USB) interface, a power line of the USB interface being used for the power adapter to charge the mobile terminal, the power adapter supporting a normal charging mode and a quick charging mode, a charging current corresponding to the quick charging mode being greater than a charging current corresponding to the normal charging mode, the power adapter comprising:

- a communication circuit configured to transmit clock signal to the mobile terminal via a first data line of the USB interface in a process of that the power adapter is coupled to the mobile terminal, wherein the clock signal indicates a communication sequence between the power adapter and the mobile terminal; and the communication circuit is further configured to conduct a bidirectional communication with the mobile terminal via a second data line of the USB interface under control of the communication sequence, so as to determine to charge the mobile terminal in the quick charging mode; and
- a current adjusting circuit configured to adjust a charging current of the power adapter to the charging current corresponding to the quick charging mode to charge the mobile terminal.

20. The power adapter of claim 19, wherein the communication sequence comprises instruction transmission time slots of the power adapter and instruction reception time slots of the power adapter, and the instruction transmission time slots and the instruction reception time slots are alternatively generated; the communication circuit is configured to transmit a first instruction to the mobile terminal via the second data line during the instruction transmission time slot of the power adapter, and the first instruction is used to query the mobile terminal for whether or not to activate the quick charging mode; the communication circuit is further configured to receive a reply instruction corresponding to the first instruction via the second data line during the instruction reception time slot of the power adapter, and the reply

instruction corresponding to the first instruction indicates that the mobile terminal agrees to activate the quick charging mode; and the communication circuit is further configured to determine to charge the mobile terminal in the quick charging mode according to the reply instruction corresponding to the first instruction.

21. The power adapter of claim 20, wherein the instruction transmission time slot of the power adapter comprises a plurality of clock periods, and each of the plurality of clock periods is used for transmitting a 1-bit data.

22. The power adapter of claim 21, wherein the instruction transmission time slot of the power adapter comprises eight clock periods, and the first instruction comprises a 8-bit data.

23. The power adapter of claim 20, wherein the instruction reception time slot of the power adapter comprises a plurality of clock periods, and each of the plurality of clock periods is used for receiving a 1-bit data.

24. The power adapter of claim 23, wherein the instruction reception time slot of the power adapter comprises ten clock periods, and the reply instruction corresponding to the first instruction comprises a 10-bit data.

25. The power adapter of claim 19, wherein the first instruction is an instruction of a quick charging communication instruction set of the power adapter, and instructions of the quick charging communication instruction set have the same previous n bits.

26. The power adapter of claim 19, wherein each clock period of the clock signal comprises a low level of 10  $\mu$ s and a high level of 500  $\mu$ s.

27. The power adapter of claim 19, wherein the first data line is a D+ data line of the USB interface, and the second data line is a D- data line of the USB interface.

28. A mobile terminal, the mobile terminal being configured to be coupled to a power adapter via a Universal Serial Bus (USB) interface, a power line of the USB interface being used for the power adapter to charge the mobile terminal, the mobile terminal supporting a normal charging mode and a quick charging mode, a charging current corresponding to the quick charging mode being greater than a charging current corresponding to the normal charging mode, the mobile terminal comprising:

- a communication circuit configured to receive clock signal from the power adapter via a first data line of the USB interface in a process of that the mobile terminal is coupled to the power adapter, wherein the clock signal indicates a communication sequence between the mobile terminal and the power adapter; the communication circuit is further configured to conduct a bidirectional communication with the power adapter via a second data line of the USB interface under control of the communication sequence, so as to cause the power adapter to determine to charge the mobile terminal in the quick charging mode; and
- a charging circuit configured to receive the charging current corresponding to the quick charging mode from the power adapter to charge a battery of the mobile terminal.

29. The mobile terminal of claim 28, wherein the communication sequence comprises instruction reception time slots of the mobile terminal and instruction transmission time slots of the mobile terminal, and the instruction reception time slots and the instruction transmission time slots are alternatively generated; the communication circuit is con-